Amendments to the Claims

Please amend the status identifier in Claim 33 as listed below. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for forming an index, ~~said~~the index including a subset of instruments selected from a universe of N instruments, ~~said~~ the method comprising the steps of:

a) assigning a covariance matrix composed of a variance for each of ~~said~~ the instruments and a correlation matrix to ~~said~~the universe;

b) removing one of ~~said~~the- instruments from ~~said~~the universe;

c) calculating a residual variance for each of ~~said~~the instruments remaining in ~~said~~the universe;

d) calculating a residual variance for ~~said~~the-universe based on ~~said~~the-residual variance for each of ~~said~~the-instruments and ~~said~~the correlation matrix;

e) reinstating ~~said~~the-instrument into ~~said~~the universe;

f) repeating steps b-e for each instrument in the universe;

g) inserting into ~~said~~the-index ~~said~~the–one of ~~said~~the instruments for which ~~said~~the residual variance of ~~said~~theuniverse is minimized;

h) eliminating from ~~said~~theuniverse ~~said~~the-one of ~~said~~theinstruments for which ~~said~~the the residual variance of ~~said~~theuniverse is minimized; and

i) repeating steps b-h until ~~said~~the index is formed.

2. (Currently Amended) The method of claim 1, wherein the step of assigning a covariance matrix includes the steps of:

calculating a variance for each of ~~said~~the instruments in ~~said~~theuniverse; and

assigning a correlation value between a plurality of pairs of ~~said~~theinstruments in ~~said~~the universe.

3. (Currently Amended) The method of claim 2, wherein some of ~~said~~the-instruments in ~~said~~the-universe are associated with an entity and wherein the step of assigning a correlation value further comprises the step of:

assigning a correlation value between each of ~~said~~the-some of ~~said~~theinstruments associated with ~~said~~the-entity.

4. (Currently Amended) The method of claim 3, wherein ~~said~~the-correlation value between each of ~~said~~the-some of ~~said~~the-instruments associated with ~~said~~the-entity is identical.

5. (Currently Amended) The method of claim 2, wherein some of ~~said~~the-instruments in ~~said~~the- universe are within a sector in a country and wherein the step of assigning a correlation value further comprises the step of:

assigning a correlation value between each of ~~said~~the-some of ~~said~~the- instruments within ~~said~~the- sector in ~~said~~the- country.

6. (Currently Amended) The method of claim 5, wherein ~~said~~the- correlation value between each of ~~said~~the-some of ~~said~~the- instruments within ~~said~~the- sector in ~~said~~the-country is identical.

7. (Currently Amended) The method of claim 2, wherein some of ~~said~~the instruments in ~~said~~the universe are within a first sector and some of ~~said~~the instruments in ~~said~~the universe are within a second sector and wherein the step of assigning a correlation value further comprises the step of:

assigning a correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector.

8. (Currently Amended) The method of claim 7, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector is identical.

9. (Currently Amended) The method of claim 2, wherein some of ~~said~~the instruments in ~~said~~the universe are associated with a first country and some of ~~said~~the instruments in ~~said~~the universe are associated with a second country and wherein the step of assigning a correlation value further comprises the step of:

assigning a correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country.

10. (Currently Amended) The method of claim 9, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country is identical.

11. (Currently Amended) The method of claim 2, wherein some of ~~said~~the instruments in ~~said~~the universe are associated with an entity, some of ~~said~~the instruments in ~~said~~the universe are within a first sector in a first country, some of ~~said~~the instruments in ~~said~~the universe are within a second sector in a second country, some of ~~said~~the instruments in ~~said~~the universe are associated with a first country and some of ~~said~~the instruments in ~~said~~the universe are associated with a second country and wherein the step of assigning a correlation value further comprises the steps of:

assigning a correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the entity;

assigning a correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector in ~~said~~the first country;

assigning a correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector; and

assigning a correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country.

12. (Currently Amended) The method of claim 11, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the entity is identical, ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector is identical, ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments within

~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector is identical and ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country is identical.

13. (Currently Amended) The method of claim 1, wherein the step of calculating a residual variance of the instruments remaining in ~~said~~the universe includes the step of:

calculating $RESVAR^m(R) = \sum_{i \notin K} (\sigma_i^m)^2 + \sum_{i \notin K} \sum_{j \neq i, j \notin K} \sigma_i^m \sigma_j^m \rho_{i,j}$

where

$\sigma_i^m = \sigma_i^0 \sqrt{(1-\rho_{i,k_1}^2)(1-\rho_{i,k_2}^2)...(1-\rho_{i,k_m}^2)}$, $i \notin K = \{k_1, k_2, ..., k_m\}$ [.] and

where $(\sigma_i^m)^2$ is the residual variance of the *i*th instrument after *m* instruments have been removed from the original universe;

where $\sigma_i^0 = w_i d_i \sigma_{Y,i}$ as the standard deviation of the *i* th instrument's total return; and

where w^T is a vector of instrument weights;

14. (Currently Amended) The method of claim 1, wherein ~~said~~the index is formed when a predetermined number of instruments in the universe are inserted into ~~said~~the index.

15. (Currently Amended) The method of claim 1, wherein ~~said~~the index is formed when a predetermined percentage of ~~said~~the instruments in the universe are inserted into ~~said~~the index.

16. (Currently Amended) The method of claim 15, wherein ~~said~~the predetermined percentage is a percentage of ~~said~~the universe of N instruments on a weighted basis.

17. (Currently Amended) The method of claim 1, further comprising the step of:

calculating an original dv01 of ~~said~~the universe before the removing one of ~~said~~the instruments step;

wherein the step of inserting into ~~said~~the index ~~said~~the one of ~~said~~the instruments for which ~~said~~the residual variance is minimized includes the step of:

calculating a remaining dv01 of ~~said~~the universe; and

wherein ~~said~~the index is formed when ~~said~~the remaining dv01 of ~~said~~the universe is a predetermined percentage of ~~said~~the original dv01 of ~~said~~the universe.

18. (Currently Amended) The method of claim 1, wherein ~~said~~the instruments are fixed income instruments.

19. (Currently Amended) The method of claim 1, wherein ~~said~~the instruments are equities.

20. (Currently Amended) The method of claim 1, wherein ~~said~~the instruments are FX securities.

21. (Currently Amended) Computer executable program code residing on a computer-readable medium, the program code comprising instructions for causing the computer to:

form an index, ~~said~~the index including a subset of instruments selected from a universe of N instruments:

a) assign a covariance matrix composed of a variance for each of ~~said~~the instruments and a correlation matrix to ~~said~~the universe;

b) remove one of ~~said~~the instruments from ~~said~~the universe;

c) calculate a residual variance for each of ~~said~~the instruments remaining in ~~said~~the universe;

d) calculate a residual variance for ~~said~~the universe based on ~~said~~the residual variance for each of ~~said~~the instruments and ~~said~~the correlation matrix;

e) reinstate ~~said~~the instrument into ~~said~~the universe;

f) repeat steps b-e for each instrument in the universe;

g) insert into ~~said~~the index ~~said~~the one of ~~said~~the instruments for which ~~said~~the residual variance of ~~said~~the universe is minimized;

h) eliminate from ~~said~~the universe ~~said~~the one of ~~said~~the instruments for which ~~said~~the residual variance of ~~said~~the universe is minimized; and

i) Repeat steps b-h until ~~said~~the index is formed.

22. (Currently Amended) The computer executable program of claim 21, wherein the program code additionally causes the computer to:

calculate a variance for each of ~~said~~the instruments in ~~said~~the universe; and

assign a correlation value between a plurality of pairs of ~~said~~the instruments in ~~said~~the universe.

23. (Currently Amended) The computer executable program of claim 22, wherein some of ~~said~~the instruments in ~~said~~the universe are associated with an entity and wherein the program code additionally causes the computer to:

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the entity.

24. (Currently Amended) The computer executable program of claim 23, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the entity is identical.

25. (Currently Amended) The computer executable program of claim 22, wherein some of ~~said~~the instruments in ~~said~~the universe are within a sector in a country and wherein the program code additionally causes the computer to:

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the sector in ~~said~~the country.

26. (Currently Amended) The computer executable program of claim 25, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the sector in ~~said~~the country is identical.

27. (Currently Amended) The computer executable program of claim 22, wherein some of ~~said~~the instruments in ~~said~~the universe are within a first sector and some of ~~said~~the instruments in ~~said~~the universe are within a second sector and wherein the program code additionally causes the computer to:

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector.

28. (Currently Amended) The computer executable program of claim 27, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector is identical.

29. (Currently Amended) The computer executable program of claim 22, wherein some of ~~said~~the instruments in ~~said~~the universe are associated with a first country and some of ~~said~~the instruments in ~~said~~the universe are associated with a second country and wherein the program code additionally causes the computer to:

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country.

30. (Currently Amended) The computer executable program of claim 29, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country is identical.

31. (Currently Amended) The computer executable program of claim 22, wherein some of ~~said~~the instruments in ~~said~~the universe are associated with an entity, some of ~~said~~the instruments in ~~said~~the universe are within a first sector in a first country, some of ~~said~~the instruments in ~~said~~the universe are within a second sector in a second country, some of ~~said~~the instruments in ~~said~~the universe are associated with a first country and some of ~~said~~the instruments in ~~said~~the

universe are associated with a second country and wherein the program code additionally causes the computer to:

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the entity;

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector in ~~said~~the first country;

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector; and

assign a correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country.

32. (Currently Amended) The computer executable program of claim 31, wherein ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the entity is identical, ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector is identical, ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments within ~~said~~the first sector and each of ~~said~~the some of ~~said~~the instruments within ~~said~~the second sector is identical and ~~said~~the correlation value between each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the first country and each of ~~said~~the some of ~~said~~the instruments associated with ~~said~~the second country is identical.

33. (Original) The computer executable program of claim 21, wherein the program code additionally causes the computer to:

$$\text{calculate } RESVAR^m(R) = \sum_{i \in K} (\sigma_i^m)^2 + \sum_{i \in K} \sum_{j \neq i, j \in K} \sigma_i^m \sigma_j^m \rho_{i,j}$$

where

$$\sigma_i^m = \sigma_i^0 \sqrt{(1-\rho_{i,k_1}^2)(1-\rho_{i,k_2}^2)...(1-\rho_{i,k_m}^2)}\,,\ i \notin K = \{k_1, k_2, ..., k_m\}\,.$$

34. (Currently Amended) The computer executable program of claim 21, wherein ~~said~~the index is formed when a predetermined number of instruments in the universe are inserted into ~~said~~the index.

35. (Currently Amended) The computer executable program of claim 21, wherein ~~said~~the index is formed when a predetermined percentage of ~~said~~the instruments in the universe are inserted into ~~said~~the index.

36. (Currently Amended) The computer executable program of claim 35, wherein ~~said~~the predetermined percentage is a percentage of ~~said~~the universe of N instruments on a weighted basis.

37. (Currently Amended) The computer executable program of claim 21, wherein the program code additionally causes the computer to:

calculate an original dv01 of ~~said~~the universe before one of ~~said~~the instruments is removed from ~~said~~the universe ;

calculate a remaining dv01 of ~~said~~the universe after one of ~~said~~the instruments is inserted into ~~said~~the index; and

wherein ~~said~~the index is formed when ~~said~~the remaining dv01 of ~~said~~the universe is a predetermined percentage of ~~said~~the original dv01 of ~~said~~the universe.

38. (Currently Amended) The computer executable program of claim 21, wherein ~~said~~the instruments are fixed income instruments.

39. (Currently Amended) The computer executable program of claim 21, wherein ~~said~~the instruments are equities.

40. (Currently Amended) The computer executable program of claim 21, wherein ~~said~~the instruments are FX securities.